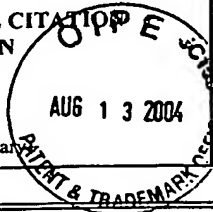


PTO-1449 REPRODUCED		ATTORNEY DOCKET NO. 0717.2013-013		APPLICATION NO. 10/824,697	
INFORMATION DISCLOSURE CITATION IN AN APPLICATION				FILING DATE April 14, 2004	
August 9, 2004				FIRST NAMED INVENTOR Roger E. Welser	
(Use several sheets if necessary)				EXAMINER Colleen Rodgers Not Assigned	
				CONFIRMATION NO. 6799	
				GROUP 2813	



U.S. PATENT DOCUMENTS				
EXAM- INER INTI- TIAL	REF. NO.	DOCUMENT NUMBER Number-Kind Code (if known)	ISSUE DATE / PUBLICATION DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT
CE	AA	US 2001/0040244 A1	11-15-2001	Fitzgerald, <i>et al.</i>
CE	AB	6,031,256	02-29-2000	Liu, <i>et al.</i>
CE	AC	5,606,185	02-25-1997	Nguyen, <i>et al.</i>
CE	AD	US 6,285,044 B1	09-04-2001	Bhat
CE	AE	US 6,150,677	11-21-2000	Tanaka <i>et al.</i>
CE	AF	US2002/0102847 A1	08-01-2002	Sharps <i>et al.</i>
	AG	<del>US 6,150,667</del>	<del>11-21-2000</del>	<del>Ishizaka <i>et al.</i></del>
CE	AH	US 2002/0027232 A1	03-07-2002	Shigematsu <i>et al.</i>
CE	AI	4,518,979	05-21-1985	Dumke <i>et al.</i>
CE	AJ	5,371,389	12-06-1994	Matsuno <i>et al.</i>
CE	AK	5,429,957	07-04-1995	Matsuno <i>et al.</i>
CE	AA2	5,571,732	11-05-1996	Liu
CE	AB2	5,814,843	09-29-1998	Ohkubo
CE	AC2	5,858,818	01-12-1999	Ro <i>et al.</i>
CE	AD2	5,903,018	05-11-1999	Shimawaki
	AE2			
	AF2			
	AG2			
	AH2			
	AI2			
	AJ2			
	AK2			
	AA3			
	AB3			
	AC3			

EXAMINER Colleen Rodgers	DATE CONSIDERED 09/23/05
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PTO-J449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  August 9, 2004  (Use several sheets if necessary)	ATTORNEY DOCKET NO. 0717.2013-013	APPLICATION NO. 10/824,697	
	FIRST NAMED INVENTOR Roger E. Welser		FILING DATE April 14, 2004
	EXAMINER <i>Colleen</i> Not Assigned <i>Rodgers</i>	CONFIRMATION NO. 6799	GROUP 2813

FOREIGN PATENT DOCUMENTS						
		DOCUMENT NUMBER Country Code-Number-Kind Code (if known)	DATE MM-DD-YYYY	NAME OF PATENTEE OR APPLICANT OF CITED DOCUMENT	TRANSLATION YES NO	
<input checked="" type="checkbox"/>	AL	WO 01/03194 A1	01-11-2001	Picogiga	X	
<input checked="" type="checkbox"/>	AM	WO 02/43155 A2	05-30-2002	Kopin Corporation		
<input checked="" type="checkbox"/>	AN	FR 2 795 871 A1	01-05-2001	Picogiga		X
<input checked="" type="checkbox"/>	AO	JP 11312685	11-09-1999	Fujitsu Ltd.		X
	AP					
	AQ					
	AL2					
	AM2					
	AN2					
	AO2					
	AP2					
	AQ2					
	AL3					
	AM3					
	AN3					
	AO3					
	AP3					
	AQ3					
	AL4					
	AM4					
	AN4					
	AO4					
	AP4					
	AQ4					

EXAMINER <i>Colleen E. Rodgers</i>	DATE CONSIDERED 09/23/05
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	FIRST NAMED INVENTOR Roger E. Welser		FILING DATE April 14, 2004	
	EXAMINER <del>Not Assigned</del> <i>Colleen Rodgers</i>	CONFIRMATION NO. 6799	GROUP 2813	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
<i>ce</i>	AR	Chang, <i>et al.</i> , "InGaAsN/AlGaAs P-n-p heterojunction bipolar transistor," <i>Applied Physics Letters</i> , 79(19):2788-2790 (2000).
<i>ce</i>	AS	Welser, <i>et al.</i> , "Low $V_{be}$ GaInAsN Base Heterojunction Bipolar Transistors," <i>IEICE Trans. Electron.</i> , E84-C(10): 1389-1393 (2001).
<i>cu</i>	AT	Li, <i>et al.</i> , "DC characteristics of MOVPE-grown Npn InGaP/InGaAsN DHBTs," <i>Electronics Letters</i> , 36(1): 81-83 (2000).
<i>ce</i>	AU	Kohama, <i>et al.</i> , "Using Carbon Tetrachloride for Carbon Doping $Al_xGa_{1-x}As$ Grown by Metalorganic Chemical Vapor Deposition," <i>Jpn. J. Appl. Phys.</i> , 34(7A): 3504-3505 (1995).
<i>cu</i>	AV	Sugiura, <i>et al.</i> , "Characterization of heavily carbon-doped InGaAsP layers grown by chemical beam epitaxy using tetrabromide," <i>Applied Physics Letters</i> , 73(17):2482-2484 (1998).
<i>ce</i>	AW	Bhat, <i>et al.</i> , "Growth of GaAsN/GaAs, GaInAsN/GaAs and GaInAsN/GaAs quantum wells by low-pressure organometallic chemical vapor deposition," <i>Journal of Crystal Growth</i> , 195: 427-437 (1998).
<i>ce</i>	AX	Chang, <i>et al.</i> , "InGaP/InGaAsN/GaAs NpN double-heterojunction bipolar transistor," <i>Applied Physics Letters</i> , 76(16):2262-2264 (2000).
<i>ce</i>	AY	Welser, R.E., <i>et al.</i> , "Role of Neutral Base Recombination in High Gain AlGaAs/GaAs HBT's," <i>IEEE Transactions on Electron Devices</i> , 46(8):1599-1607(1999).
<i>ce</i>	AZ	Ahmari, D.A., <i>et al.</i> , "High-speed InGaP/GaAs HBT's with a Strained $In_xGa_{1-x}As$ Base," <i>IEEE Electron Device Letters</i> , 17(5):226-228(1996).
<i>ce</i>	AR2	Welser, R.E., <i>et al.</i> , "Turn-on Voltage Investigation of GaAs-Based Bipolar Transistors with $Ga_{1-x}In_xAs_{1-y}N_y$ Base Layers," <i>IEEE Electron Device Letters</i> , 21(12):1-4(2000).
<i>ce</i>	AS2	Low, T., <i>et al.</i> , "InGaP HBT technology for RF and microwave instrumentation," <i>Solid-State Electronics</i> , 43:1437-1444(1999).
<i>ce</i>	AT2	Liu, W., <i>et al.</i> , "Current Transport Mechanism in GaInP/GaAs Heterojunction Bipolar Transistors," <i>IEEE Transactions on Electron Devices</i> , 40(8):1378-1383(1993).
<i>ce</i>	AU2	Lu, Z.H., <i>et al.</i> , "Determination of band gap narrowing and hole density for heavily C-doped GaAs by photoluminescence," <i>Appl. Phys. Lett.</i> , 64(1): 88-90(1994).

EXAMINER <i>Colleen Rodgers</i>	DATE CONSIDERED 09/23/05
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OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
CR	AV2	Welser, R.E., et al., "High Performance Al <sub>0.35</sub> Ga <sub>0.65</sub> As/GaAs HBT's," <i>IEEE Electron Device Letters</i> , 21(5):196-199(2000).
CR	AW2	Welser, R.E., et al., "Base Current Investigation of the Long-Term Reliability of GaAs-Based HBTs," <i>GaAs Mantech</i> , (2000).
CR	AX2	Patton, G.L., et al. "Graded-SiGe-Base, Poly-Emitter Heterojunction Bipolar Transistors," <i>IEEE Electron Device Letters</i> , 10(12):534-536(1989).
CR	AY2	Ida, M., et al., "InP/InGaAs DHBTs with 341-GHz $f_T$ at high current density of over 800 kA/cm <sup>2</sup> ," <i>IEEE</i> , (2001).
CR	AZ2	Kroemer, H., "Heterostructure bipolar transistors: What should we build?" <i>J. Vac. Sci. Technol.</i> , B1(2):126-130(1983).
CR	AR3	Fujihara, A., et al., "High-speed InP/InGaAs DHBTs with Ballistic Collector Launcher Structure," <i>IEEE</i> , (2001).
CR	AS3	Nakahara, K., et al., "Continuous-wave operation of long-wavelength GaInNAs/GaAs quantum well laser," <i>Electronic Letters</i> , 32(17): 1585-1586(1996).
CR	AT3	Mochizuki, K., et al., "GaInP/GaAs Collector-Up Tunneling-Collector Heterojunction Bipolar Transistors (C-Up TC-HBTs): Optimization of Fabrication Process and Epitaxial Layer Structure for High-Efficiency High-Power Amplifiers," <i>Transactions on Electron Devices</i> , 47(12):2277-2283(2000).
CR	AU3	Pan, N., et al., "Pseudomorphic In-Graded Carbon Doped GaAs Base Heterojunction Bipolar Transistors by Metal Organic Chemical Vapor Deposition," <i>Journal of Electronic Materials</i> , 25(7):13 (1996).
CR	AV3	Ohkubo, M., et al., "Compositionally Graded C-doped In <sub>1-x</sub> Ga <sub>x</sub> As Base in InP/InGaAs D-HBTs Grown by MOCVD with Low Base Sheet Resistance and High Current Gain", <i>IEEE</i> , pp. 641-644, 1997.
CR	AW3	Stockman, S. A., et al., "Carbon Doping of In <sub>x</sub> Ga <sub>1-x</sub> As By MOCVD Using CCl <sub>4</sub> ", pp. 40-43, no date given.
CR	AX3	Keiper, D., et al., "Metalorganic Vapour Phase Epitaxy Growth of InP-based Heterojunction Bipolar Transistors with Carbon Doped InGaAs Base Using Tertiarybutylarsine and Tertiarybutylphosphine in N <sub>2</sub> Ambient", XP-001030248, <i>Jpn. J. Appl. Phys.</i> , Vol. 39:6162-6165 (2000).

EXAMINER Colleen Rodgers	DATE CONSIDERED 09/23/05
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PTQ-1449 REPRODUCED  <b>INFORMATION DISCLOSURE CITATION IN AN APPLICATION</b>  August 9, 2004  (Use several sheets if necessary)	ATTORNEY DOCKET NO. 0717.2013-013		APPLICATION NO. 10/824,697	
	FIRST NAMED INVENTOR Roger E. Welser		FILING DATE April 14, 2004	
	EXAMINER <del>Not Assigned</del> <i>Colleen Rodgers</i>	CONFIRMATION NO. 6799	GROUP 2813	

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)		
	AY3	Stillman, G. E., <i>et al.</i> , "Carbon-doped InGaAs grown by MOCVD for InP/InGaAs heterojunction bipolar transistors", <i>Inst. Phys. Conf. Ser. No. 129:687-692</i> (1992).

EXAMINER <i>Colleen E. Rodgers</i>	DATE CONSIDERED 09/23/05
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**SUPPLEMENTAL INFORMATION DISCLOSURE  
STATEMENT IN AN APPLICATION**

**April 19, 2005**

(Use several sheets if necessary)

ATTORNEY DOCKET NO.  
0717.2013-013

APPLICATION NO.  
10/824,697

FIRST NAMED INVENTOR  
Roger E. Welser

**FILING DATE**  
**April 14, 2004**

EXAMINER Colleen Rodgers  
~~Whitehead Jr. Carl W.~~

CONFIRMATION NO.  
6799

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2813**

## U.S. PATENT DOCUMENTS

[illegible]

**EXAMINER**

MINER  
Colleen E. Boyd

DATE CONSIDERED

09/23/05

[illegible]

EXAMINER <i>Colleen J. Rodgers</i>	DATE CONSIDERED <i>09/23/05</i>
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